PLAINTIFF'S EXHIBIT

UC-3636

F-100: A NEW ASBESTOS FILLED PHENOLIC PLASTIC

The cheapest extrudable, weather-resistant material with flexural strength over 10,000 PSI available in the world.

* *

Filler Content:	As much as 90% -- excellent strength attainable with 80% filler content.
Fillers:	Union Carbide Mining and Metals Division's asbestos from Coalinga California alone or in combination with other fillers such as wood chips and wood flour for a variety of physical properties.
Uses:	Suitable for molding and extrusion operations.

ADVANTAGES

1. Low Cost:	High filler content coupled with ease of manufacturing makes it suitable for many applications where the cost of phenolic resin is presently prohibitive.
2. Ease of Handling:	Mixing and forming operations may be performed at room temperature.
3. Stability:	A molding mix may be stored under refrigeration for long periods of time without deterioration.
4. Versatility:	Coalinga asbestos may be combined with a wide variety of filler materials to achieve various physical properties without adversely affecting the moldability and forming properties of the mix. The phenolic resin used is compatible with many resin modifiers to obtain increases in chemical and water resistance, flexural and tensile strength or improved handling characteristics.
5. Chemical Resistance:	The phenolic resin used has considerable resistance to chemical attack and has been used extensively for corrosion resistance services. F-100 pipe and panels have been tested at Carbon Products Division,

Union Carbide trial exhibit UC-3636: F-100: A New Asbestos Filled Phenolic Plastic, Union Carbide Mining and Met... Published by AsbestosClaims.Law
ACL Doc 18362 · Page 1 of 4 asbestosclaims.law/library/18362/1

Fostoria, Ohio for resistance to attack by hot (60°C) sodium hydroxide solution (10%) and hot (125°C) sulfuric acid. The tests showed F-100 more resistant to attack than commercial phenolic-bonded Haveg 41 pipe.

THE COALINGA ASBESTOS FILLER

The primary filler material in all of the F-100 molding and extrusion mixes is a unique form of chrysotile asbestos mined by Union Carbide Mining and Metals Division in Coalinga, California.

It has a uniformly short length with much higher than normal ability to absorb and hold water and oils. This characteristic makes it extremely desirable where maximum filler to resin bond strength is desired.

It may be combined easily with water soluble phenolics as in the F-100 series of products or with many emulsion or latex forms of plastics and rubbers.

The ability of Coalinga asbestos to hold liquids even under high pressure extrusion and molding operations has made possible a new and low cost method of plastic forming, whereby the asbestos is compounded directly with the latex, emulsion, or solution form of such plastics as phenolics, polyvinyl acetate and polyethylene. The resulting mix may be extruded or molded to form pipe, sheet, or other simple articles.

Curing involves a two-stage process. Low temperature curing is required to permit removal of the solvent phase -- e.g. water in the case of F-100 phenolic mixes and in many latex mixes. Higher temperature curing is then necessary to promote polymerization of the plastic binder.

Other filler materials may be blended with Coalinga asbestos prior to the addition of the binder to obtain unique physical or ornamental effects. However, sufficient Coalinga asbestos must be present to promote the extrusion and forming characteristics of the mix.

The following is a summary of test results obtain at Bell Laboratories on Union Carbide Mining and Metals Division conduit samples. All samples tested exceed specifications:

Union Carbide trial exhibit UC-3636: F-100: A New Asbestos Filled Phenolic Plastic, Union Carbide Mining and Met... Published by AsbestosClaims.Law
ACL Doc 18362 · Page 2 of 4 asbestosclaims.law/library/18362/2

BELL LABORATORIES CONDUIT TEST DATA REPORTED SEPTEMBER 26, 1962

Sample No.	Sample Conditions	Crush Strength (lbs./ft.)	Deflection at Break, (in.)	Fiber** Stress, (psi)	Compression Modulus, (psi)
398-58	dry	2350	0.120	7620	946,800
398-62	dry	2126	0.105	6520	888,100
398-62	wet*	2252	0.125	6920	887,600

* Water pickup during one week immersion at room temperature 0.23%

** "Fiber Stress" - A measurement of the tensile strength at the surface of the pipe obtained in compression. This value is also reported by MIT and is in agreement.

Union Carbide trial exhibit UC-3636: F-100: A New Asbestos Filled Phenolic Plastic, Union Carbide Mining and Met... Published by AsbestosClaims.Law
ACL Doc 18362 · Page 3 of 4 asbestosclaims.law/library/18362/3

Gentlemen:

In recent conversations between our respective representatives, you indicated a desire to evaluate the possible manufacture and sale of resin bonded asbestos extruded products. We have developed technical information, data and know-how relating to the manufacture and sale of resin bonded asbestos extruded products (all said technical information, data and know-how hereinafter individually and collectively called "Carbide's Know-How.") We are willing to disclose Carbide's Know-How to you, but only for your evaluation and subject to the following conditions:

1. "You shall, for a period of ten (10) years from and after the date of disclosure hereunder, which shall be the term of this Agreement, keep secret and confidential Carbide's Know-How disclosed by us hereunder and shall not disclose the same except to such of your employees who must in the course of evaluating Carbide's Know-How have access thereto and shall not use the same, except as provided in paragraph 2 below.

2. "You shall have the right to use Carbide's Know-How for evaluation but shall not have the right to use Carbide's Know-How for any other purpose. This use restriction shall apply to all applications of Carbide's Know-How, including but not limited to any beneficial uses in your present business.

3. "Your obligations under paragraphs 1 and 2 above shall cease when, after and to the extent Carbide's Know-How (i) was already known to you at the time of its disclosure by or on our behalf hereunder, (ii) is or later becomes generally known or available to the public, or (iii) is disclosed to you by a third party having no direct or indirect secrecy obligation to us with respect to said Know-How, provided that within sixty (60) days from the time such Know-How is either disclosed to you by or on our behalf or is otherwise made known to you, whichever is the later, you furnish us reasonably convincing evidence that said Know-How satisfies the requirements of (i), (ii) or (iii) above."

If you are in agreement with the foregoing, kindly sign both copies of this letter, returning the original to us and retaining the copy for your file.

Very truly yours,

UNION CARBIDE CORPORATION
Mining and Metals Division

By_____
Division Vice President

Agreed to and Accepted:

By_____

Date:_____

UCC 008499